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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,245	08/21/2002	Toshihiro Sadaoka	50069-11	4541
20277 7590 06/03/2008 MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096				
EXAMINER				
CHOI, FRANK I				
ART UNIT		PAPER NUMBER		
1616				
MAIL DATE		DELIVERY MODE		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/089,245

Applicant(s)

SADAOKA ET AL.

Examiner

FRANK I. CHOI

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-549)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In view of the Appeal Brief filed on 5/17/2006, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for selectively capable of absorbing oxidized sebum in preference to other types of sebum, does not reasonably provide enablement for selectively capable of absorbing oxidized sebum to the exclusion of other types of sebum. The specification does not enable any

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person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The nature of the invention:

The prior art is directed to a sebum absorbing paper containing hydroxyapatite which is selectively capable of absorbing oxidized sebum from other types of sebum.

The state of the prior art and the predictability or lack thereof in the art:

The prior art discloses papers containing hydroxyapatite and that hydroxyapatite can selectively absorb oxidized oils. However, the prior art does not disclose that hydroxyapatite can selectively absorb oxidized sebum to the exclusion of other types of sebum.

The amount of direction or guidance present and the presence or absence of working examples:

The Specification discloses an experiment in which pseudo sebum, i.e. oleic acid, oleic oxide and olive oil, were tested, however, there was no showing that hydroxyapatite did not absorb at least some non-oxidized oil.

The breadth of the claims and the quantity of experimentation needed:

The claims are broad in that they encompass absorbing of oxidized sebum from other types of sebum, i.e. to the exclusion of other types of sebum. As such, one of ordinary skill in the art would be required to do undue experimentation in order to show that the hydroxyapatite containing paper did not absorb to any extent other types of sebum.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 393 723 in view of the acknowledged prior art, JP 11-137336, US Pat. Fujii et al. (US Pat. 5,041,252), JP 63188628 and JP 63027411.

EP 0 393 723 discloses papers and nonwoven fabrics carrying or incorporating calcium phosphate compounds in the form of powders, granules or porous granules, having a particle size of 0.1 to 30 microns (Pg. 6, lines 7-15). It is disclosed that the paper contains 10 to 80% by weight of the calcium phosphate compound as a filler (Pg. 8, lines 43,44). It is disclosed that hydroxyapatite is a suitable calcium phosphate compound (Pg. 8, lines 44,45). It is disclosed that the calcium phosphate compound is generally solely used as a filler in the functional paper, however, if desired, it may be used together with conventional fillers such as talc (Pg. 9, lines 8-10). It is disclosed that preferably the functional paper shows a basis weight of 20 g/m² or more (Pg. 9, line 40). It is disclosed that the functional paper can be used to adsorb any oil-soluble substances which could not be adsorbed with an activated carbon (Pg. 4, line 58, Pg. 5, line 1). It is disclosed that the functional paper can be used in diapers, sanitary napkins and pads for bedsores (Pg. 9, lines 45-50).

The Applicant acknowledges that the skin surface, in particular around the nose and chin and middle of the forehead, tends to be oily due to the frequent secretion of sebum. It is disclosed that the human skin is damaged by oxidized sebum generated by its exposure to the air while the time passes after its secretion. (Specification, Page 1).

Fujii et al. disclose nonwoven fabric in the form of baby's napkin, women's sanitary napkin and toilet paper, which is not stimulative to the skin and has soft and good touch feeling, applied to the skin, in which inorganic materials, such as apatite and the like are added to improve the properties of the nonwoven fabric (Column 3, lines 9-16, Column 4, lines 52-67). It is disclosed that the nonwoven fabric can have a basis weight of 5 to 500 g/m², preferably 5 to 400 g/m², more preferably 10 to 300 g/m². (Column 4, lines 14-20).

JP 11-137336 discloses a paper used to absorb sebum from the skin containing talc having an average particle size of 1.2 microns where the basic weight of the paper is in the range of 15-25 g/m² (Paragraphs 0048, 0023).

JP 63027411 disclose that hydroxyapatite is effective in eliminating skin lipid byproducts that have an adverse effect on the skin and that hydroxy apatite powder demonstrates excellent selective absorption of peroxidized lipids (See Page 3 of translation of 63027411).

JP 63188628 disclose that lipid peroxides produced by oxidative deterioration cause rough skin and acne inflammation and that hydroxyapatite absorbs these sebaceous waste products (See Page 6 for translation of 63188628).

The difference between the prior art and the claimed invention is that the prior art does not expressly disclose a sebum absorbing paper used for applying to skin or for cleaning skin which contains 1-30% by weight hydroxyapatite and has a basis weight of 5 to 25 g/m². However, the prior art amply suggests the same as it is known in the art to use papers containing hydroxyapatite and talc as absorbants, papers having a basis weight of 15-25 g/m² containing talc are known to be used for absorbing sebum/oil from the skin and that hydroxyapatite is used in cosmetic products to selectively absorb oxidized lipids. As such, one of ordinary skill in the

art would have been motivated to modify the prior art as above with the expectation that a paper having a basis weight of 15-25 g/m² containing hydroxyapatite and talc would be suitable for selectively absorbing oxidized sebum from the skin because hydroxyapatite powders are known to be effective in selectively absorbing oxidized lipids from the skin and papers having a basis weight of 15-25 g/m² are disclosed as suitable for use in absorbing sebum and oil from the skin.

The Examiner had duly considered Applicant's arguments but deems them moot in light of the new grounds of rejection herein.

To the extent that the Applicant's arguments are applicable, the Examiner incorporates the arguments set forth on Pages 7-11 of the Final Office Action (11/17/2005).

Also, the Supreme Court in *KSR International Co. v. Teleflex Inc.*, held the following:

(1) the obviousness analysis need not seek out precise teachings directed to the subject matter of the challenged claim and can take into account the inferences and creative steps that one of ordinary skill in the art would employ;

(2) the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion and motivation, or by overemphasis on the importance of published articles and the explicit content of issued patents;

(3) it is error to look only the problem the patentee was trying to solve-any need or problem known in the filed of endeavor at the time of invention and addressed by the prior art can provide a reason for combining the elements in the manner claimed;

(4) it is error to assume that one of ordinary skill in the art in attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem-common sense teaches that familiar items may have obvious uses beyond their primary purposes,

and in many cases one of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle (one of ordinary skill in the art is not automaton);

(5) it is error to assume that a patent claim cannot be proved obvious merely by showing that the combination of elements was “obvious to try”. *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396, 1397 (U.S. 2007).

As such, the Applicant’s arguments relative to motivation do not overcome the rejection herein.

In addition to the arguments with respect to EP’723, set forth in the Final Office Action (11/17/2005), the prior art, as indicated above, discloses a paper having a basis weight of 15-25 g/m² which is suitable for absorbing sebum on the skin. As such, it would have been well within the skill of and one of ordinary skill in the art would expect that EP’723 papers having said basis weight would also be suitable for absorbing sebum on the skin. The mere fact that EP’723 does not explicitly teach that the paper can be used to absorb sebum on skin does not overcome the rejection. As indicated above, it is error to assume that one of ordinary skill in the art in attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem-common sense teaches that familiar items may have obvious uses beyond their primary purposes and one of ordinary skill in the art will be able to fit the teachings of multiple patents together like pieces of a puzzle.

The Applicant argues that the Examiner has failed to explain why one of ordinary skill in the art would reasonably expect that that a product taught as directly applied to skin or used in other delivery systems with the notable exception of paper could be applied to the skin with paper. However, the prior art, as indicated above, disclose that powders can be incorporated into

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papers for application to the skin for absorbing sebum. JP'628 and JP'411 disclose that the hydroxyapatite is in the form of a powder and absorbs oxidized sebum. EP'723 discloses the incorporation of powdered hydroxyapatite into paper. As such, there is amply reason for one of ordinary skill in the art to expect that the hydroxyapatite powders of JP'628 and JP'411 can be incorporated into paper. As indicated above, one of ordinary skill in the art is not an automaton.

Contrary to the Applicant's arguments, the prior art, as indicated above, does disclose that hydroxyapatite can selectively absorb oxidized sebum.

Therefore, the claimed invention, as a whole, would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention has been collectively taught by the combined teachings of the references.

Conclusion

A facsimile center has been established in Technology Center 1600. The hours of operation are Monday through Friday, 8:45 AM to 4:45 PM. The telecopier number for accessing the facsimile machine is 571-273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank Choi whose telephone number is (571)272-0610. Examiner maintains a compressed schedule and may be reached Monday, Tuesday, Thursday, Friday, 6:00 am – 4:30 pm (EST).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's Supervisor, Johann R. Richter, can be reached at (571)272-0646. Additionally, Technology Center 1600's Receptionist and Customer Service can be reached at (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Frank Choi
Patent Examiner
Technology Center 1600
June 3, 2008

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/Johann R. Richter/

Supervisory Patent Examiner, Art Unit 1616